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10/550,967	09/26/2005	Heinrich Franz Bartosik	N0484.70060US00	6112

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EXAMINER	
PULLIAS, JESSE SCOTT	
ART UNIT	PAPER NUMBER
2626	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,967	BARTOSIK ET AL.	
	Examiner	Art Unit	
	JESSE PULLIAS	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to correspondence filed 06/29/11 regarding application 10/550,967, in which claims 1, 2, 7, and 17 were amended and new claims 18-20 were added. Claims 1-20 are pending in the application and have been considered.

Response to Arguments

2. Amended claim 7 overcomes the rejection under 35 U.S.C. 101 as being directed to non-statutory subject matter, and so it is withdrawn. Dependent claims 8-17 are now also directed to statutory subject matter, and so the rejections of these claims are withdrawn.

3. The arguments on pages 8-11 of the Remarks regarding the prior art rejections have been considered but are moot in view of the new grounds of rejection, necessitated by Applicant's amendments.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-6, 7-9, 11, 13, 14, 16, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (6,278,968) in view of Mishelevich et al. (WO 01/31634).

Consider claim 1, Franz discloses a speech recognition and correction system comprising:

at least one speech recognition device configured to transcribe a spoken text into a recognized text **(Fig 2,** speech recognizer 222**)**; and

a correction device configured to: correct the recognized text, said correction device being connected to the at least one speech recognition device via a data communications medium for the transmission of the recognized text and/or of the spoken text **(Fig 12,** user interface 1298, User Selection/Configuration 1210**)**;

store a lexicon of alternatives, the lexicon of alternatives comprising a plurality of entries **(Fig 12,** ordered list of utterance hypothesis 1208, **Fig 13,** list 1310**)**;

display at least some of the plurality of entries as a list of alternatives to individual word parts, words and/or word sequences of the recognized text **(Fig 13,** list 1310**)**.

Franz does not specifically mention wherein the plurality of entries include one or more alternatives determined from one or more sources of knowledge that are independent of an analysis by an acoustic model and a language model used by the at least one speech recognition device during transcription of the spoken text.

Mishelevich discloses a plurality of entries include one or more alternatives determined from one or more sources of knowledge that are independent of an analysis

by an acoustic model and a language model used by at least one speech recognition device during transcription of a spoken text **(p16 lines 1-22,** generating alternatives by analyzing the Soundex codes, which are independent of the acoustic and contextual model, see **p6 lines 31-32, p15 lines 21-22,** displaying the alternatives, see **Fig 10)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz such that the plurality of entries include one or more alternatives determined from one or more sources of knowledge that are independent of an analysis by an acoustic model and a language model used by the at least one speech recognition device during transcription of the spoken text, in order to substantially increase the speed and efficiency of the proofreading of speech recognition generated documents, as suggested by Mishelevich **(p1-2, lines 36-2).**

Consider claim 2, Franz discloses a correction device for correcting a text recognized by a speech recognition device, the correction device comprising:

a storage device configured to store a lexicon of alternatives comprising a plurality of entries **(Fig 2,** memory 200); and at least one processor **(Fig 2,** digital processor 208**)** configured to:

display at least some of the plurality of entries as a list of alternatives to individual word parts, words and/or word sequences of the recognized text **(Fig 13,** list 1310).

Franz does not specifically mention wherein the plurality of entries include one or more alternatives determined from one or more sources of knowledge that are

independent of an analysis by an acoustic model and a language model used by the speech recognition device.

Mishelevich discloses a plurality of entries include one or more alternatives determined from one or more sources of knowledge that are independent of an analysis by an acoustic model and a language model used by a speech recognition device **(p16 lines 1-22,** generating alternatives by analyzing the Soundex codes, which are independent of the acoustic and contextual model, see **p6 lines 31-32, p15 lines 21-22,** displaying the alternatives, see **Fig 10)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz such that the plurality of entries include one or more alternatives determined from one or more sources of knowledge that are independent of an analysis by an acoustic model and a language model used by the speech recognition device, for reasons similar to those for claim 1.

Consider claim 7, Franz discloses a computer-implemented method of creating an entry in a lexicon of alternatives used to correct recognized text transcribed from a spoken text by a speech recognition device, the method comprising:

examining, by at least one processor **(Fig 1,** e.g. processor 102), at least one source of knowledge that is independent of the speech recognition device with respect to text elements, including word parts, words and/or word sequences contained therein that can be confused with one another **(Fig 2,** language models 250, acoustic models 260**)** and;

including the text elements that can be confused with one another as a list of alternatives in the entry of the lexicon of alternatives **(Fig 4,** hypothesis construction module 406, **Fig 13,** list 1310**)**.

Franz does not specifically mention examining at least one source of knowledge that is independent of an acoustic model and a language model used by the speech recognition device.

Mishelevich discloses examining at least one source of knowledge that is independent of an acoustic model and a language model used by the speech recognition device **(p16 lines 1-22,** generating alternatives by analyzing the Soundex codes, which are independent of the acoustic and contextual model, see **p6 lines 31-32, p15 lines 21-22,** displaying the alternatives, see **Fig 10).**

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz by examining at least one source of knowledge that is independent of an acoustic model and a language model used by the speech recognition device, for reasons similar to those for claim 1.

Consider claim 3, Franz discloses: an analyzer configured to analyze selected text passages of the recognized text by using character chain comparison or syntactic analysis **(Fig 2,** syntactic analyzer 234, **Fig 15)**, and to determine alternatives to the selected text passages from the lexicon of alternatives **(Fig 15)**.

Consider claim 4, Franz discloses the analyzer can be activated by a user of the correction device **(Fig 12,** user interface 1298**)**.

Consider claim 5, Franz discloses the analyzer determines selected text passages from a cursor position or a marking information of a text processing program **(Fig 13)**.

Consider claim 6, Franz does not, but Mishelevich determines selected text passages from a time position of the spoken text and its association with the recognized text **(p13 lines 20-24)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz by determining selected text passages from a time position of the spoken text and its association with the recognized text for reasons similar to those for claim 1.

Consider claim 8, Franz discloses determining the text element replacements made in a corrected text with respect to the recognized text transcribed by the speech recognition device; and recording the text element replacements as alternatives in the lexicon of alternatives **(Fig 12, 13, Col 17 lines 17-23,** a particular correction which is made repeatedly accrues more likelihood of being a correct alternative**)**.

Consider claim 9, Franz discloses evaluating a frequency of each text element

replacement, and recording the text element replacements as alternatives in the lexicon of alternatives only when a predetermined lower limit value of the frequency, expressed by an absolute number of the text element replacements or the ratio of number of the text element replacements with respect to the overall number of text elements examined or with respect to an overall occurrence of a given text element is exceeded **(Col 17 lines 17-23,** a particular correction which is made repeatedly accrues more likelihood of being a correct alternative**)**.

Consider claim 11, Franz discloses analyzing the acoustic similarity of the text element replacements; and recording the text element replacements as alternatives in the lexicon of alternatives only when the text element replacements have a predetermined degree of phonetic similarity **(Col 17 lines 17-23,** a particular correction is made repeatedly, i.e. the same word was selected, which is completely phonetically similar to the previous correction, and thus accrues more likelihood of being a correct alternative**)**.

Consider claim 13, Franz discloses subdividing the plurality of entries according to speech **(Fig 2,** syntactic analyzer**)**.

Consider claim 14, Franz does not, but Mishelevich discloses subdividing the plurality of entries according to technical field or field of application **(p16, lines 1-9)**.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the invention of Mishelevich by subdividing the plurality of entries according to technical field or field of application for reasons similar to those for claim 1.

Consider claim 16, Franz discloses the lexicon of alternatives is adapted online during a correction of recognized texts **(Col 17 lines 17-23)**.

Consider claim 17, Franz does not, but Mishelevich discloses at least one source of knowledge that is independent of the speech recognition device includes text files specific to the field of application and/or confusion statistics, wherein the confusion statistics are compiled from corrected texts and associated recognized texts generated by at least one speech recognition device **(Fig 12)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz such that at least one source of knowledge that is independent of the speech recognition device includes text files specific to the field of application and/or confusion statistics, wherein the confusion statistics are compiled from corrected texts and associated recognized texts generated by at least one speech recognition device for reasons similar to those for claim 1.

Consider claim 18, Franz discloses the correction device is further configured to update the list of alternatives for at least some of the plurality of entries in the lexicon of alternatives displayed for a particular individual word part, word, and/or word sequence based, at least in part, on a number of times that the correction device previously

corrected the particular individual word part, word, and/or word sequence with a text element replacement selected by a user, wherein the list of alternatives is updated only when the number of times is at least two times **(Col 17 lines 17-23,** a particular correction which is made repeatedly accrues more likelihood of being a correct alternative**)**.

Consider claim 19, Franz discloses the at least one processor is further configured to update the list of alternatives for at least some of the plurality of entries in the lexicon of alternatives displayed for a particular individual word part, word, and/or word sequence based, at least in part, on a number of times that the correction device previously corrected the particular individual word part, word, and/or word sequence with a text element replacement selected by a user, wherein the list of alternatives is updated only when the number of times is at least two times **(Col 17 lines 17-23,** a particular correction which is made repeatedly accrues more likelihood of being a correct alternative**)**.

Consider claim 20, Franz discloses updating the list of alternatives in the entry based, at least in part, on whether a frequency of previous corrections of the recognized text with text element replacements selected by a user is within predetermined bounds **(Col 17 lines 17-23,** a particular correction being made "repeatedly"**)**.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et

al. (6,278,968) in view of Mishelevich et al. (WO 01/31634), in further view of Ortega et al. (6,507,816), herein referred to as Ortega '816.

Consider claim 10, Franz and Mishelevich do not, but Ortega '816 discloses evaluating a frequency of each text element examined in the at least one source of knowledge; and recording the text element replacements as alternatives in the lexicon of alternatives only when a predetermined upper limit value of the frequency, expressed by an absolute number of the text element replacements or a ratio of a number of the text element replacements with respect to an overall number of text elements examined, is not reached **(Col 5 lines 17-20,** e.g. when 100% is not reached).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz and Mishelevich by evaluating a frequency of each text element examined in the at least one source of knowledge; and recording the text element replacements as alternatives in the lexicon of alternatives only when a predetermined upper limit value of the frequency, expressed by an absolute number of the text element replacements or a ratio of a number of the text element replacements with respect to an overall number of text elements examined, is not reached, in order to solve misrecognition problems as suggested by Ortega '816.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (6,278,968) in view of Mishelevich et al. (WO 01/31634), in further view of Chen (5,864,805).

Consider claim 12, Franz and Mishelevich do not, but Chen discloses analyzing time positions of the text element replacements with respect to the spoken text; and recording the text element replacements as alternatives in the lexicon of alternatives only when there is a corresponding text element in the spoken text that is similar in terms of time **(Col 3 lines 11-20, lines 21-23, lines 32-39, Col 4 lines 40-46).**

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz and Mishelevich by analyzing time positions of the text element replacements with respect to the spoken text; and recording the text element replacements as alternatives in the lexicon of alternatives only when there is a corresponding text element in the spoken text that is similar in terms of time in order to fix word boundaries problems, as suggested by Chen **(Col 1 lines 44-46)**.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (6,278,968) in view of Mishelevich et al. (WO 01/31634), in further view of Ortega et al. (6,332,122), herein referred to as Ortega '122.

Consider claim 15, Franz and Mishelevich do not, but Ortega '122 discloses subdividing the plurality of entries according to author of the spoken text or a corrected text **(Abstract)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Franz and Mishelevich by subdividing the plurality of entries according to author of the spoken text or a corrected text in order to overcome

difficulties in identifying multiple users, as suggested by Ortega '122 **(Col 1 lines 19-26).**

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse Pullias whose telephone number is 571/270-5135. The examiner can normally be reached on M-F 9:00 AM - 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571/272-7843. The fax phone number

for the organization where this application or proceeding is assigned is 571/270-6135.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jesse S. Pullias/
Examiner, Art Unit 2626

/Talivaldis Ivars Smits/
Primary Examiner, Art Unit 2626 09/20/2011